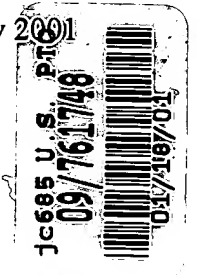


Michael Hu

Object Authentication Method Using  
Printed Binary Code And Computer Registry

# 112  
12 January 2001



**PETITION UNDER MPEP 708.02 VIII**

**A. Submission of Petition**

Petitioner respectfully submits that the instant petition is being filed in the United States Patent Office together with payment of the fee set forth in 37 CFR 1.17(i) as stipulated by MPEP 708.02VIII(A).

**B. Presentation of Claims to a Single Invention**

1. Petitioner respectfully submits that:

- a. the instant application for patent possesses one base claim, i.e. Claim 1;
- b. all the other claims, i.e. Claims 2 - 58, are properly dependent upon said base claim in specifying a further restriction upon the subject matter claimed therein;
- c. present Claims 1 - 58 are all directed to an object authentication method using printed origin and authentication code components and a computer registry in which an ownership code component possessing an ownership status indicative of the type of ownership and "variable by authorized access to said registry to reflect transfer of ownership" (Claim 1, lines 13 - 14); and hence all the claims of the present application are directed to a single invention in accordance with MPEP 708.02VIII(B).

2. Petitioner respectfully states that 'if the Office determines that all the claims presented are not obviously directed to a single invention' election without traverse will be made 'as prerequisite to the grant of special status' in accordance with MPEP 708.02VIII(B).

**C. Conduct of Preexamination Search**

Petitioner respectfully hereby states that a preexamination search was conducted in the U.S. Patent Office encompassing the field described below by class and subclass which exhausted all references, domestic and foreign, for each below listed subclass as noted.

continued

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**Field of Search**

Class 283: Printed Matter

*Subclass 70:* Method; Identifying.

*Subclass 75:* Having Revealable Concealed Information, Fraud Preventer Or Detector, Use Preventor Or Dectector, Or Identifier; Identifier.

*Class 705:* Data Processing: Financial, Business Practice, Management, Or Cost/Price Determination.

*Subclass 1\*:* Automated Electrical Financial Or Business Practice Or Management Arrangement.

*Subclass 64:* Business Processing Using Cryptography; Secure Transaction.

*Subclass 72:* Business Processing Using Cryptography; Secure Transaction; Verifying PIN.

*Subclass 75:* Business Processing Using Cryptography; Secure Transaction; Transaction Verification.

*Class 713:* Electrical Computers And Digital Processing Systems: Support

*Subclass 123\*:* Having Cryptographic User Or Record Activated Authentication.

*Subclass 125\*:* Having Cryptographic User Or Record Activated Authentication; Computer.

*Subclass 155:* Multiple Computer Communication Using Cryptography; Central Trusted Authority Provides Computer Identification.

*Subclass 156:* Multiple Computer Communication Using Cryptography; Central Trusted Authority Provides Computer Identification; By Certificate.

*Subclass 157:* Multiple Computer Communication Using Cryptography; Central Trusted Authority Provides Computer Identification; By Certificate; Chain or Hierarchial Certificates.

*Subclass 158:* Multiple Computer Communication Using Cryptography; Central Trusted Authority Provides Computer Identification; By Certificate; Revocation Or Expiration.

Note: \* Foreign art only; subclass encompasses scope encompassed by other subclasses in domestic classification. 705/1 (For) = 705/64 - 75 (Dom); 713/123 (For) = 713/155 - 1588 (Dom).

**PETITION UNDER MPEP 708.02 VIII****D. Submission of References**

Petitioner respectfully submits that one copy each of the below listed references, which references are deemed most closely related to the subject matter encompassed by the instant claim, is attached hereto in submission thereof.

**References Cited**

<i>Patent No.</i>	<i>Inventor</i>	<i>Date</i>	<i>Title</i>
1. U.S. 3,829,133	Smagala-Romanoff	8/13/74	Coded Checks and Methods of Coding
2. GB 2 101 376 A	McNeight et al.	1/12/81	Method and apparatus for use against counterfeiting
3. U.S. 4,725,079	Koza et al.	2/16/88	Lottery Ticket Integrity Number
4. U.S. 5,267,314	Stambler	11/30/93	Secure Transaction System And Method Utilized Therein
5. U.S. 5,380,047	Molee et al.	1/10/95	Authentication System
6. U.S. 6,030,001	Kruckemeyer	2/29/00	Method For Determining Forgeries And Authenticating Signatures

**E. Detailed Discussion of the References Cited**

## 1. U.S. 3,829,133 - Smagala-Romanoff - Coded Checks and Methods of Coding

a. Petitioner respectfully submits that Smagala-Romanoff discloses a system whereby at least one masked number and another clearly visible number included in a serial number are printed on cheques and the 'code' providing conversion of one to the other is memorized by the cheque bearer and may also be printed on the cheque, preferably using at least two different characters known as 'keys' which each alternately visible or masked and related to each other with a predetermined position of each in a series of digits and whereby a plurality of keys enables use by more than one person.

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b. Petitioner respectfully submits that the present subject matter, in addition to the use of two different, related, codes both printed upon the article concerned, and in contrast to the disclosure of Smagala-Romanoff, includes not only recording of both codes into "a computer memory registry" but further includes the step of:

- (e) recording in said registry, in a manner related to each said authentication code component, an ownership code component including an ownership status which has at least two conditions each indicative of a type of ownership including that by the recognized creator of said plurality of objects initially and which condition is variable by authorized access to said registry to reflect transfer of ownership; (Claim 1, lines 11 - 15)

which includes at least four elements, listed below, which are each wholly novel to and which are each essential to providing a new function neither disclosed nor suggested by Smagala-Romanoff which function is considered to comprise a patentable distinction over the prior art:

- i. recording of an ownership code component;
- ii. indication of type of ownership;
- iii. variation of the type of ownership indicated by authorized access;
- iv. reflection of a transfer of ownership;

which, in reference to the computer registry related recording of the two sets of printed code upon the article, enable ascertainment of the ownership status which is a valuable indicator for detection of theft or fraud.

c. Petitioner respectfully submits that Smagala-Romanoff discloses a 'revealable' masked printed code that is not alterable and which is therefore incapable of indicating a transfer of ownership which ability is considered to comprise a patentable novelty distinguishing the presently claimed subject matter over this prior art reference.

2. GB 2 101 376 A - McNeight et al. - Method and apparatus for use against counterfeiting

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- a. Petitioner respectfully submits that McNeight et al. disclose:

a method for identifying genuinely produced or properly sold mass produced articles from fake or diverted articles that may be identical or apparently so, comprising applying to said produced articles a coded identifying mark generated by a secret algorithm, and which is unique for each article of all such articles produced or which is applicable to only a small subset of such articles, the algorithm being such that the gamut of marks is under utilised; (Page 1, lines 50 - 60)

wherein use of the code to describe the article is suggested, with a central computer directory to which queries may be made by local inspectors, i.e. police, and in which the use of 'check digits' inconspicuously contained in the printed code in predetermined positions which are the most significant or least significant values of a number produced by treating the other numbers in the printed code with a certain algorithm is recommended.

- b. Petitioner respectfully submits that the present subject matter, in addition to the use of two different codes with one being algorithmically derived from the other and both printed upon the article concerned, and in addition to recording of both codes into "a computer memory registry", in contrast to the disclosure of McNeight et al. further includes the step of:

(e) recording in said registry, in a manner related to each said authentication code component, an ownership code component including an ownership status which has at least two conditions each indicative of a type of ownership including that by the recognized creator of said plurality of objects initially and which condition is variable by authorized access to said registry to reflect transfer of ownership; (Claim 1, lines 11 - 15)

which includes at least four elements, listed below, which are each wholly novel to and which are each essential to providing a new function neither disclosed nor suggested by Smagala-Romanoff which function is considered to comprise a patentable distinction over the prior art:

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- i. recording of an ownership code component;
- ii. indication of type of ownership;
- iii. variation of the type of ownership indicated by authorized access;
- iv. reflection of a transfer of ownership;

which, in reference to the computer registry related recording of the two sets of printed code upon the article, enable ascertainment of the ownership status which is a valuable indicator for detection of theft or fraud.

c. Petitioner respectfully submits that McNeight et al. disclose use of two printed code components one of which is verifiable as being derived algorithmically derived from the other with use of "a programmable hand-held calculator or computer ... which is also programmed to detect whether any particular mark has been read before" (Abstract) but is wholly lacking in the disclosure of any variable code component related to the invariant code components which is necessary for indicating a transfer of ownership which ability is considered to comprise a patentable novelty distinguishing the presently claimed subject matter over this prior art reference.

3. U.S. 4,725,079 - Koza et al. - Lottery Ticket Integrity Number

a. Petitioner respectfully submits that Koza et al. disclose the use of two printed numbers, 'book' and 'integrity', on the front and back, respectively, of a lottery ticket wherein the book number refers to a particular packet from which the ticket originated and the book and integrity numbers of the winning tickets are related by an algorithm known only to the manufacturer and the lottery administration, the book number being further preferably covered with a foil or other lamination removable after purchase and means for simultaneous printing of both the front and back of the tickets with computer control is further disclosed.

b. Petitioner respectfully submits that the present subject matter, in addition to the use of two different codes with one being algorithmically derived from the other and both printed upon the article concerned, and in addition to recording of both codes into "a computer memory registry", in contrast

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to the disclosure of Koza et al. further includes the step of:

- (e) recording in said registry, in a manner related to each said authentication code component, an ownership code component including an ownership status which has at least two conditions each indicative of a type of ownership including that by the recognized creator of said plurality of objects initially and which condition is variable by authorized access to said registry to reflect transfer of ownership; (Claim 1, lines 11 - 15)

which includes at least four elements, listed below, which are each wholly novel to and which are each essential to providing a new function neither disclosed nor suggested by Koza et al. which function is considered to comprise a patentable distinction over the prior art:

- i. recording of an ownership code component;
- ii. indication of type of ownership;
- iii. variation of the type of ownership indicated by authorized access;
- iv. reflection of a transfer of ownership;

which, in reference to the computer registry related recording of the two sets of printed code upon the article, enable ascertainment of the ownership status which is a valuable indicator for detection of theft or fraud.

c. Petitioner respectfully submits that Koza et al. disclose use of two printed code components one of which is verifiable as being derived algorithmically derived from the other with use of telephonic access to a central computer but is wholly lacking in the disclosure of any variable code component related to the invariant code components which is necessary for indicating a transfer of ownership which ability is considered to comprise a patentable novelty distinguishing the presently claimed subject matter over this prior art reference.

4. U.S. 5,267,314 - Stambler - Secure Transaction System And Method Utilized Therein

a. Petitioner respectfully submits that Stambler discloses use of a 'joint code' from information

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associated with one or more of the parties involved in a particular transaction requiring authentication of a document or other 'thing' which joint code is used to produce a 'variable authentication number' or VAN, associated with the transaction and the item concerned so that subsequently only:

parties capable of reconstructing the joint code will be able to uncode the VAN properly in order to re-derive the information. The joint code serves to authenticate the parties, and the comparison of the re-derived information against the information recorded on the document serves to authenticate the accuracy of that information.  
(Abstract)

b. Petitioner respectfully submits that the present subject matter, in addition to the use of two different, related, codes both printed upon the article concerned, and in contrast to the disclosure of Stambler, includes not only recording of both codes into "a computer memory registry" but further includes the step of:

(e) recording in said registry, in a manner related to each said authentication code component, an ownership code component including an ownership status which has at least two conditions each indicative of a type of ownership including that by the recognized creator of said plurality of objects initially and which condition is variable by authorized access to said registry to reflect transfer of ownership; (Claim 1, lines 11 - 15)

which includes at least four elements, listed below, which are each wholly novel to and which are each essential to providing a new function neither disclosed nor suggested by Stambler which function is considered to comprise a patentable distinction over the prior art:

- i. recording of an ownership code component;
- ii. indication of type of ownership;
- iii. variation of the type of ownership indicated by authorized access;



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iv. reflection of a transfer of ownership;

which, in reference to the computer registry related recording of the two sets of printed code upon the article, enable ascertainment of the ownership status which is a valuable indicator for detection of theft or fraud.

c. Petitioner respectfully submits that Stambler discloses a two component code which is not alterable and which is therefore incapable of indicating a transfer of ownership which ability is considered to comprise a patentable novelty distinguishing the presently claimed subject matter over this prior art reference.

5. U.S. 5,380,047 - Molee et al. - Authentication System

a. Petitioner respectfully submits that Molee et al. disclose 'an authentication system' utilizing a unique code number which is fixed to the article "with a tamper-proof adhesive" that a certificate is provided bearing the same unique code number, and "(a) list of unique code numbers is maintained to enable a purchaser of the article to register that article such that the purchaser or a subsequent purchaser can verify the authenticity of the authenticated article" (Abstract).

b. Petitioner respectfully submits that the present subject matter, in addition to the use of a registry of unique codes printed upon the article concerned which may be used to verify authenticity, and in contrast to the disclosure of Molee et al., also include the step of:

(e) recording in said registry, in a manner related to each said authentication code component, an ownership code component including an ownership status which has at least two conditions each indicative of a type of ownership including that by the recognized creator of said plurality of objects initially and which condition is variable by authorized access to said registry to reflect transfer of ownership; (Claim 1, lines 11 - 15)

which includes at least four elements, listed below, which are each wholly novel to and which are each essential to providing a new function neither disclosed nor suggested by Molee et al. which function

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is considered to comprise a patentable distinction over the prior art:

- i. recording of an ownership code component;
- ii. indication of type of ownership;
- iii. variation of the type of ownership indicated by authorized access;
- iv. reflection of a transfer of ownership;

which, in reference to the computer registry related recording of the two sets of printed code upon the article, enable ascertainment of the ownership status which is a valuable indicator for detection of theft or fraud.

c. Petitioner respectfully submits that Molee et al. disclose an authentication code which is held in a registry which identifies a person using a PIN or a signature but which is incapable of indicating more than one type of ownership which ability is considered to comprise a patentable novelty distinguishing the presently claimed subject matter over this prior art reference.

6. U.S. 6,030,001 - Kruckemeyer - Method For Determining Forgeries And Authenticating Signatures

a. Petitioner respectfully submits that Kruckemeyer discloses use of an electronic fingerprint (EF), or equivalent bar code, unique to each document bearing the 'Principal's signature and containing an invariant personal identification number (PIN) selected by the principal and that prior to registration of the EF the principal acknowledges physical possession of the document bearing the EF with use of their PIN while a record of transfer of the document or item is further maintained by a central registry.

b. Petitioner respectfully submits that the present subject matter utilizes an origin code component, an authentication code component, and "an ownership code component including an ownership status" (Claim 1, line 12) "indicating the type of ownership recognized" (Claim 1, lines 18 - 19) and which "is variable by authorized access to said registry to reflect recognized transfer of ownership" (Claim 1, lines 13 - 15) and which "may be ascertained with reference to said origin and

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authentication code components in said registry" (Claim 1, lines 18 - 19) and which knowledge is considered a valuable indicator for detection of theft or fraud.

c. Petitioner respectfully submits that Kruckemeyer utilizes a PIN to identify parties having ownership, that the record of transfer of ownership is in relation to the PIN which is required to access that record, and that this method cannot possibly enable the novel function of the presently claimed subject matter as the code printed upon the article does not enable access to the registry which reveals the ownership status and therefore it is not possible for a prospective owner to ascertain if the article concerned is of an ownership status appropriate to the current owner which ability is considered to comprise a patentable novelty distinguishing the presently claimed subject matter over this prior art reference.

7. Petitioner respectfully submits that the above detailed discussion of the references cited herein as representative of the most pertinent known prior art with respect to consideration of the patentability of the presently claimed subject matter further identifies the patentable novelty with respect to the known 'state of the art' as disclosed by said references as the ownership code component which includes an ownership status which may be ascertained with reference to a registry by the printed code components, and which is variable by authorized access, which provides the ability to a prospective owner in possession of the printed code components to ascertain the recognized type of ownership and whether a transfer of ownership has been recognized in addition to verifying authenticity and independently of personal identification.

8. Petitioner respectfully submits that the requirements of MPEP 708.02 VIII E have been met in paragraphs E.1 - 7 above as the presently claimed subject matter has been shown to be patentable over the references "with the particularity required by 37 CFR 1.111 (b) and (c) by demonstrating "how the language of the claims patentably distinguishes them from the references" and in identifying the patentable novelty presented by the claims "in view of the state of the art disclosed by the references cited".

Michael Hu

Object Authentication Method Using  
Printed Binary Code And Computer Registry

12 January 2001

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**F. Request for Allowance**

Petitioner respectfully submits that the present Petition Under MPEP 708.02 VIII fulfills all the requirement stipulated therefore, that said petition demonstrates that the presently claimed invention is distinguished by a patentable novelty over the known prior art, and that the present application is furthermore in full and proper condition for allowance which action is respectfully and humbly requested.

Respectfully yours,

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